[Document Name] Specification

[Name of Invention] Method of Producing Copolymer polyester

[Claims]

[Claim 1] A transformant obtainable by transforming a host, whose polyhydroxybutanoic acid polymerase gene is disrupted, with a recombinant vector containing a polyester polymerase gene, a β-ketothiolase gene and a NADPH-acetoacetyl CoA reductase gene.

[Claim 2] The transformant of claim 1 wherein the polyester polymerase gene comprises a DNA encoding the following protein (a) or (b):

(a) a protein having an amino acid sequence represented by SEQ ID NO: 2 or 4, or

(b) a protein having an amino acid sequence including deletion, substitution, or addition of one or more amino acids relative to the amino acid sequence represented by SEQ ID NO: 2 or 4, and having polyester polymerase activity.

[Claim 3] The transformant of claim 1 wherein the polyester polymerase gene comprises the following DNA (a) or (b):

(a) a DNA having a nucleotide sequence represented by SEQ ID NO: 1 or 3, or

(b) a DNA hybridizing to a DNA containing a nucleotide sequence of SEQ ID NO: 1 or 3 under stringent conditions, and encoding a protein with polyester polymerase activity.

[Claim 4] The transformant of claim 1 wherein the β-ketothiolase gene comprises a DNA encoding the following protein (a) or (b):

(a) a protein having an amino acid sequence represented by SEQ ID NO:6, or

(b) a protein having an amino acid sequence including deletion, substitution or addition of one or more amino acids relative to the amino acid sequence represented by SEQ ID NO: 6, and having β-ketothiolase activity.

[Claim 5] The transformant of claim 1 wherein the β-ketothiolase gene comprises the following DNA (a) or (b):

(a) a DNA having a nucleotide sequence represented by SEQ ID NO: 5, or

(b) a DNA hybridizing to a DNA containing a nucleotide sequence of SEQ ID NO: 5 under stringent conditions, and encoding a protein with β-ketothiolase activity.